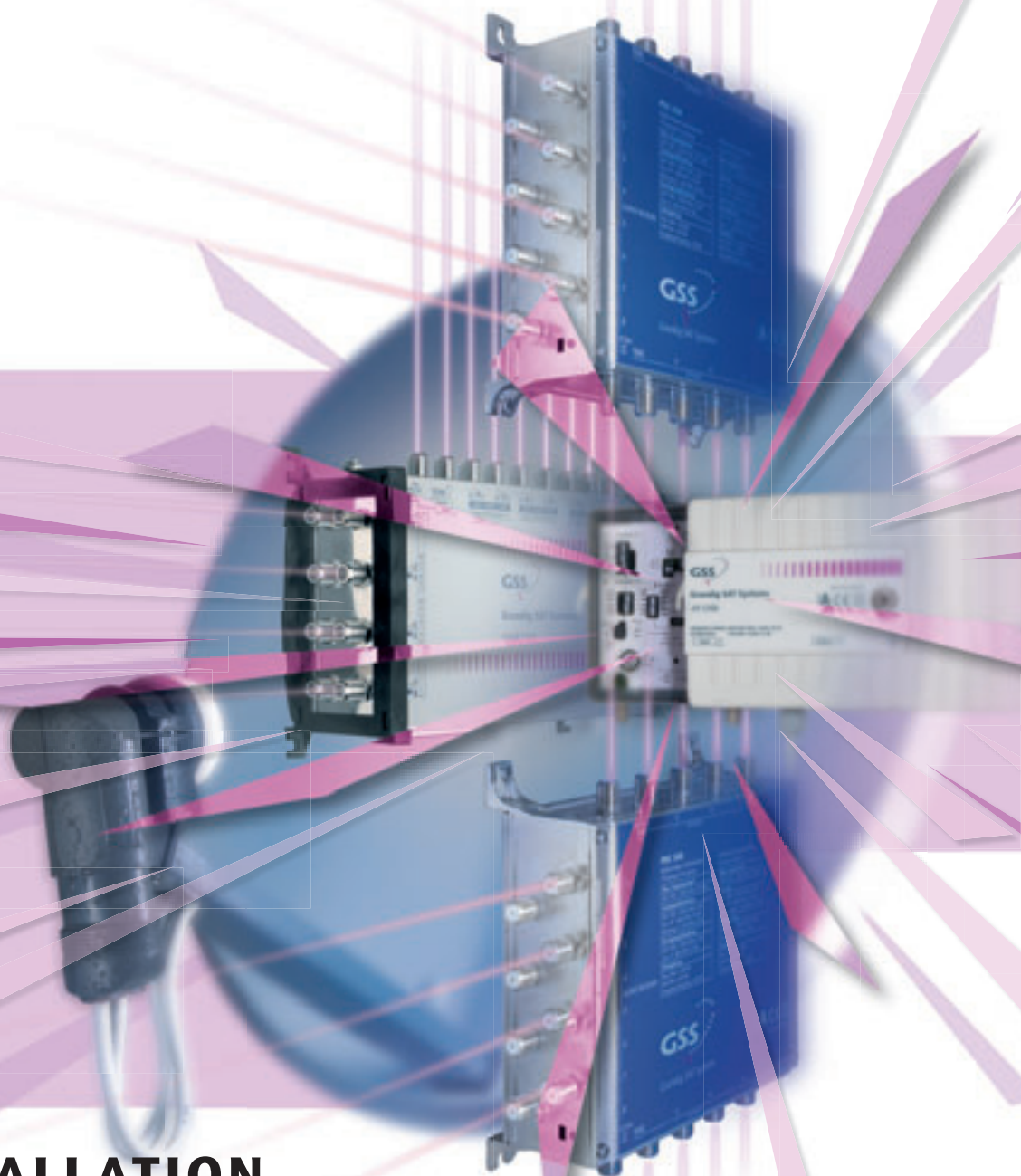




Grundig SAT Systems



INSTALLATION EQUIPMENT PROGRAMME

2012/2013

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You will find every product for the installation of Broadband communication and SAT IF networks in this catalogue. Beginning with the satellite antenna with the corresponding LNB further to every necessary component of the satellite IF distribution equipment to the point of wall outlet - everything from one source. There are every necessary components for the range of broadband communication installation equipment after the feed-in of the corresponding signal - this equipment consists of broadband communication amplifiers, taps and splitters and wall outlets. There is the suitable product for every application.

Two new multiswitches in the range of satellite IF distribution are added. There are a 24 and a 32 output multiswitch version with 16 satellite inputs and 1 terrestrial input. These multiswitches are featured with the well-known advantages of the current multiswitch portfolio: low power consumption and first-class isolation values.

For the first time you will find for the most of the products a QR code. You can get to the relevant product site on our homepage and download e.g. the manual or assembly instruction for this product.

We are sure that you can equip your distribution network with every necessary components from GSS.

On behalf of the Board of Directors

Fred Huebner

5 inputs

Multiswitches with 4 SAT IF inputs and one active terrestrial input. The latter can be attenuated by up to 10 dB and also switched to passive stage which allows return-channel applications. A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

	SDSP 504	SDSP 506	SDSP 508	SDSP 512	SDSP 516
No. of SAT inputs	4	4	4	4	4
No. of terrestrial inputs	1	1	1	1	1
No. of outputs	4	6	8	12	16
Frequency range	SAT 950 – 2200 MHz TERR 87 – 862 MHz RETURN CHANNEL 5 – 65 MHz (if TERR is passive!)				
22-kHz generator	•	•	•	•	•
Tap loss	SAT 1 dB TERR (passive) 12 dB	SAT 1 dB TERR (passive) 15 dB	SAT 1 dB TERR (passive) 15 dB	SAT 3 dB TERR (passive) 18 dB	SAT 3 dB TERR (passive) 18 dB
Distribution	TERR (active) 3 dB	0 dB	0 dB	-3 dB	-3 dB
Isolation	Hor./Vert. > 30 dB SAT/TERR > 25 dB Port/Port > 20 dB	Hor./Vert. > 30 dB SAT/TERR > 25 dB Port/Port > 20 dB	Hor./Vert. > 30 dB SAT/TERR > 25 dB Port/Port > 20 dB	Hor./Vert. > 30 dB SAT/TERR > 25 dB Port/Port > 20 dB	Hor./Vert. > 30 dB SAT/TERR > 25 dB Port/Port > 20 dB
Return loss	SAT 10 dB TERR 10 dB	SAT 10 dB TERR 10 dB	SAT 10 dB TERR 10 dB	SAT 10 dB TERR 10 dB	SAT 10 dB TERR 10 dB
Return-channel loss	12 dB	15 dB	15 dB	18 dB	18 dB
Output level	SAT max. 101 dBμV TERR max. 97 dBμV				
Noise figure	SAT 7 dB TERR 6 dB	SAT 7 dB TERR 6 dB	SAT 7 dB TERR 6 dB	SAT 7 dB TERR 6 dB	SAT 7 dB TERR 6 dB
Feeding for receiver	< 65 mA	< 65 mA	< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB	4.7 W	4.7 W	4.7 W	4.7 W	4.7 W
Mains voltage	100 – 230 V AC, 50/60 Hz				
Dimensions in mm	225x125x60	225x125x60	225x125x60	225x215x60	225x215x60



STANDARD MULTISWITCHES FOR SINGLE SYSTEMS

9 inputs

Multiswitches with 8 SAT IF inputs and one active terrestrial input. The latter can be attenuated by up to 10 dB and also switched to passive stage which allows return-channel applications. A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

	SDSP 904	SDSP 906	SDSP 908	SDSP 912	SDSP 916	SDSP 924	SDSP 932
No. of SAT inputs	8	8	8	8	8	8	8
No. of terrestrial inputs	1	1	1	1	1	1	1
No. of outputs	4	6	8	12	16	24	32
Frequency range	SAT 950 – 2200 MHz TERR 87 – 862 MHz RETURN CHANNEL 5 – 65 MHz (if TERR is passive!)						
22-kHz generator	•	•	•	•	•	•	•
Tap loss	SAT 3 dB TERR (passive) 12 dB	3 dB 15 dB	3 dB 15 dB	5 dB 18 dB	5 dB 18 dB	0 dB 28 dB	0 dB 28 dB
Distribution	TERR (active)	3 dB	0 dB	0 dB	-3 dB	-3 dB	0 dB
Isolation	Hor./Vert. > 30 dB SAT/TERR > 25 dB Port/Port > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT 10 dB TERR 10 dB	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss	12 dB	15 dB	15 dB	18 dB	18 dB	28 dB	28 dB
Output level	SAT max. 101 dBµV TERR max. 97 dBµV						max. 95 dBµV max. 95 dBµV
Noise figure	SAT 7 dB TERR 6 dB	7 dB 6 dB	7 dB 6 dB	7 dB 6 dB	7 dB 6 dB	7 dB 8 dB	7 dB 8 dB
Feeding for receiver	< 65 mA	< 65 mA	< 65 mA	< 65 mA	< 65 mA	< 30 mA	< 30 mA
Power consumption without LNB	4.7 W	4.7 W	4.7 W	4.7 W	4.7 W	9 W	9 W
Mains voltage	100 – 230 V AC, 50/60 Hz						
Dimensions in mm	260x125x60	260x125x60	260x125x60	260x215x60	260x215x60	185x290x60	185x290x60



13 inputs

Multiswitches with 12 SAT IF inputs and one active terrestrial input. The latter can be attenuated by up to 10 dB and also switched to passive stage which allows return-channel applications.

		SDSP 1308	SDSP 1312	SDSP 1316
No. of SAT inputs		12	12	12
No. of terrestrial inputs		1	1	1
No. of outputs		8	12	16
Frequency range	SAT TERR RETURN CHANNEL		950 – 2200 MHz 87 – 862 MHz 5 – 65 MHz (if TERR is passive!)	
22-kHz generator		—	—	—
Tap loss	SAT TERR (passive)	5 dB 15 dB	7 dB 18 dB	7 dB 18 dB
Distribution	TERR (active)	0 dB	-3 dB	-3 dB
Isolation	Hor./Vert. SAT/TERR Port/Port	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT TERR	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss		15 dB	18 dB	18 dB
Output level	SAT TERR		max. 101 dBµV max. 97 dBµV	
Noise figure	SAT TERR	7 dB 6 dB	7 dB 6 dB	7 dB 6 dB
Feeding for receiver		< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB		3.5 W	3.5 W	3.5 W
Mains voltage		100 – 230 V AC, 50/60 Hz		
Dimensions in mm		340 x 125 x 60	340 x 215 x 60	340 x 215 x 60



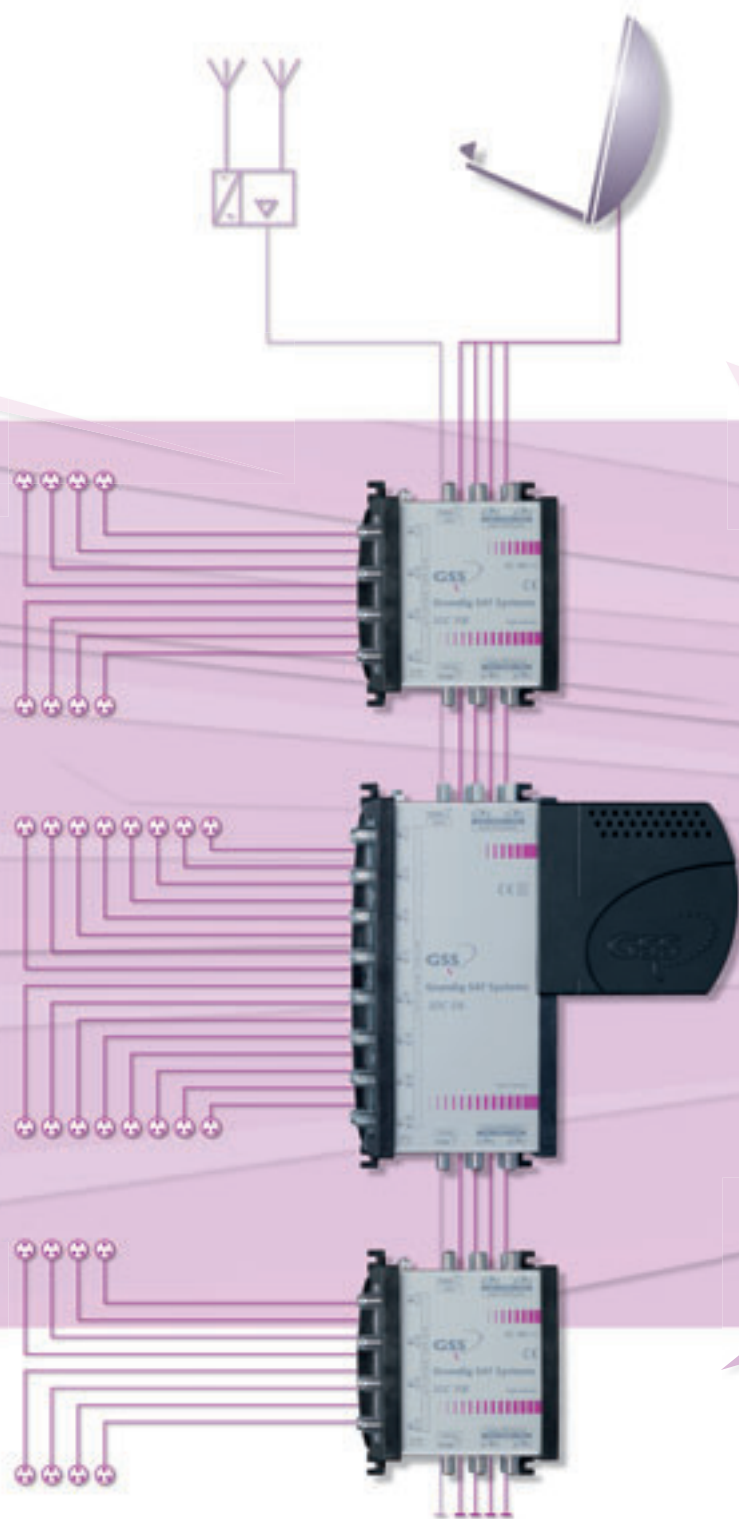
STANDARD MULTISWITCHES FOR SINGLE SYSTEMS

17 inputs

Multiswitches with 16 SAT IF inputs and one active terrestrial input. The latter can be attenuated by up to 10 dB and also switched to passive stage which allows return-channel applications.

	SDSP 1708	SDSP 1712	SDSP 1716	SDSP 1724	SDSP 1732
No. of SAT inputs	16	16	16	16	16
No. of terrestrial inputs	1	1	1	1	1
No. of outputs	8	12	16	24	32
Frequency range	SAT 950 – 2200 MHz TERR 87 – 862 MHz RETURN CHANNEL 5 – 65 MHz (if TERR is passive!)				
22-kHz generator	—	—	—	—	—
Tap loss	SAT 5 dB TERR (passive) 15 dB	7 dB 18 dB	7 dB 18 dB	0 dB 28 dB	0 dB 28 dB
Distribution	TERR (active)	0 dB	-3 dB	-3 dB	0 dB
Isolation	Hor./Vert. SAT/TERR Port/Port	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT 10 dB TERR 10 dB	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss	15 dB	18 dB	18 dB	28 dB	28 dB
Output level	SAT max. 101 dBμV TERR max. 97 dBμV	max. 95 dBμV max. 95 dBμV			
Noise figure	SAT 7 dB TERR 6 dB	7 dB 6 dB	7 dB 6 dB	7 dB 8 dB	7 dB 8 dB
Feeding for receiver	< 65 mA	< 65 mA	< 65 mA	< 30 mA	< 30 mA
Power consumption without LNB	3.5 W	3.5 W	3.5 W	9 W	9 W
Mains voltage	100 – 230 V AC, 50/60 Hz				
Dimensions in mm	340 x 125 x 60	340 x 215 x 60	340 x 215 x 60	220 x 290 x 60	220 x 290 x 60





Satellite installation for digital and analogue reception of one satellite (e.g. ASTRA 19.2°) with terrestrial feed for up to 32 participants. The power supply unit can flexibly connected to any of the three multiswitches.

CASCADABLE STANDARD MULTISWITCHES

5 inputs

The cascadable multiswitch system consists of components with loop-through outputs and terminal units to be installed at the end of the distribution. The multiswitches with 4 SAT IF inputs have an additional passive terrestrial input which is capable for return-channel signals. A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

		SDC 504	SDC 508	SDC 516
No. of SAT inputs		4	4	4
No. of terrestrial inputs		1	1	1
No. of loop-through outputs		5	5	5
No. of receiver outputs		4	8	16
Frequency range	SAT TERR RETURN CHANNEL	950 – 2200 MHz 87 – 862 MHz 5 – 65 MHz		
22-kHz generator		•	•	•
Through loss	SAT TERR	2 dB 2 dB	2 dB 2 dB	4 dB 4 dB
Tap loss	SAT TERR	1 dB 20 dB	1 dB 23 dB	3 dB 25 dB
Isolation	Hor./Vert. SAT/TERR Port/Port	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT TERR	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss		20 dB	23 dB	25 dB
Output level	SAT TERR	max. 101 dBμV passive		
Noise figure	SAT TERR	7 dB passive	7 dB passive	7 dB passive
Feeding for receiver		< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB		1.5 W	1.5 W	1.5 W
Mains voltage		via SDP 900		
Dimensions in mm		125x135x60	125x135x60	125x225x60



Satellite installation for digital and analogue reception of two satellites (e.g. ASTRA 19.2° and Eutelsat 13°) with terrestrial feed for up to 76 participants. The input signals are fed via a SAT IF amplifier.

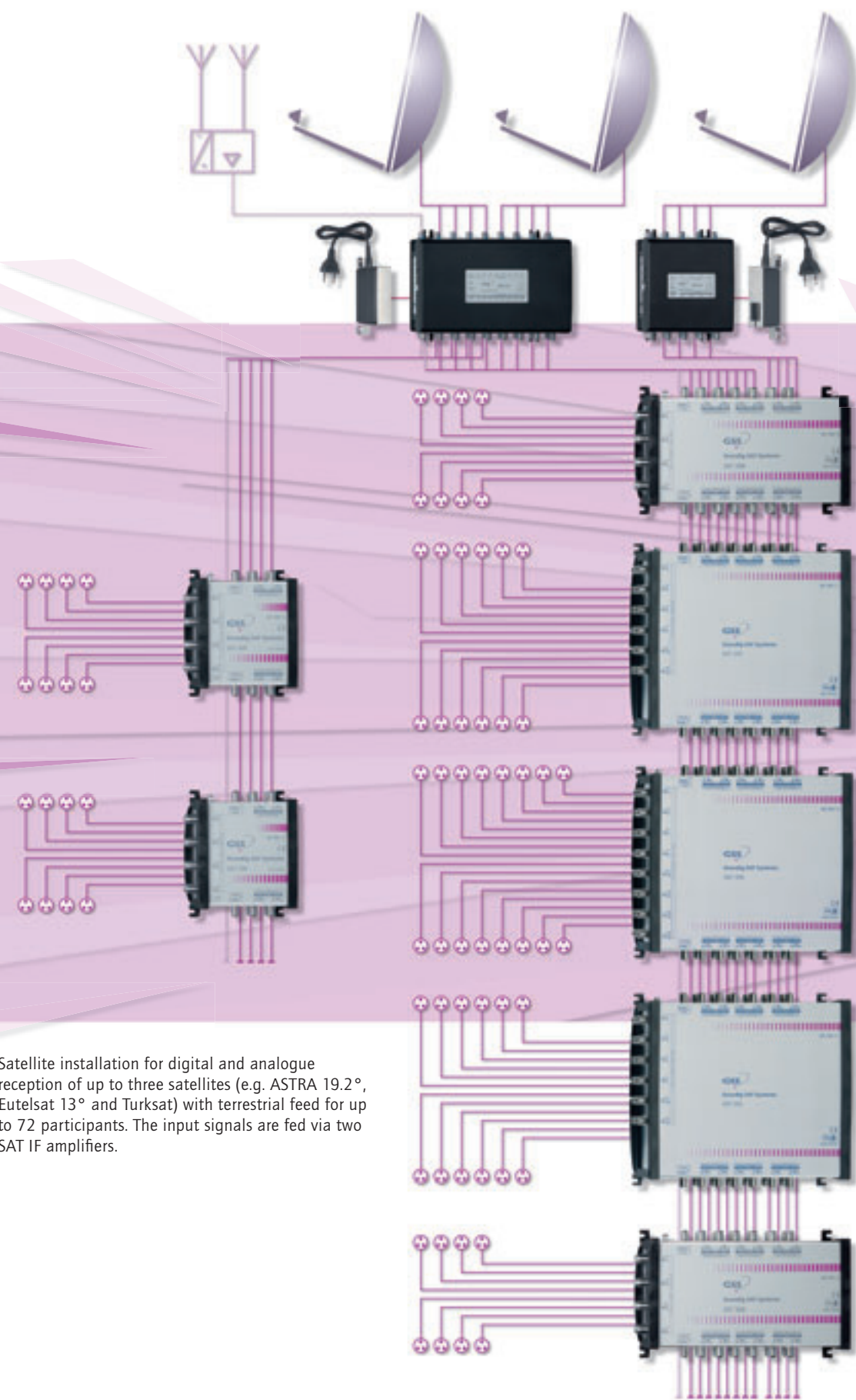
CASCADABLE STANDARD MULTISWITCHES

9 inputs

The cascadable multiswitch system consists of components with loop-through outputs and terminal units to be installed at the end of the distribution. The multiswitches with 8 SAT IF inputs have an additional passive terrestrial input which is capable for return-channel signals. A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

		SDC 904	SDC 906	SDC 908	SDC 912	SDC 916
No. of SAT inputs		8	8	8	8	8
No. of terrestrial inputs		1	1	1	1	1
No. of loop-through outputs		9	9	9	9	9
No. of receiver outputs		4	6	8	12	16
Frequency range	SAT TERR RETURN CHANNEL	950 – 2200 MHz 87 – 862 MHz 5 – 65 MHz				
22-kHz generator		•	•	•	•	•
Through loss	SAT TERR	2 dB 2 dB	2 dB 2 dB	2 dB 2 dB	4 dB 4 dB	4 dB 4 dB
Tap loss	SAT TERR	3 dB 20 dB	3 dB 23 dB	3 dB 23 dB	5 dB 25 dB	5 dB 25 dB
Isolation	Hor./Vert. SAT/TERR Port/Port	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT TERR	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss		20 dB	23 dB	23 dB	25 dB	25 dB
Output level	SAT TERR	max. 101 dBµV passive				
Noise figure	SAT TERR	7 dB passive	7 dB passive	7 dB passive	7 dB passive	7 dB passive
Feeding for receiver		< 65 mA	< 65 mA	< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB		1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
Mains voltage		via SDP 900	via SDP 900	via SDP 900	via SDP 900	via SDP 900
Dimensions in mm		160x135x60	160x135x60	160x135x60	160x225x60	160x225x60





The diagram illustrates a satellite distribution system. At the top, three satellite dishes are shown, each connected to a black SAT IF amplifier. These amplifiers are connected to a central distribution unit. From this unit, multiple lines branch out to a series of five white distribution units, each labeled 'GSE'. Each of these units has multiple output ports, each connected to a small circular icon representing a participant. The entire system is set against a background of stylized, overlapping purple and pink shapes.

Satellite installation for digital and analogue reception of up to three satellites (e.g. ASTRA 19.2°, Eutelsat 13° and Turksat) with terrestrial feed for up to 72 participants. The input signals are fed via two SAT IF amplifiers.

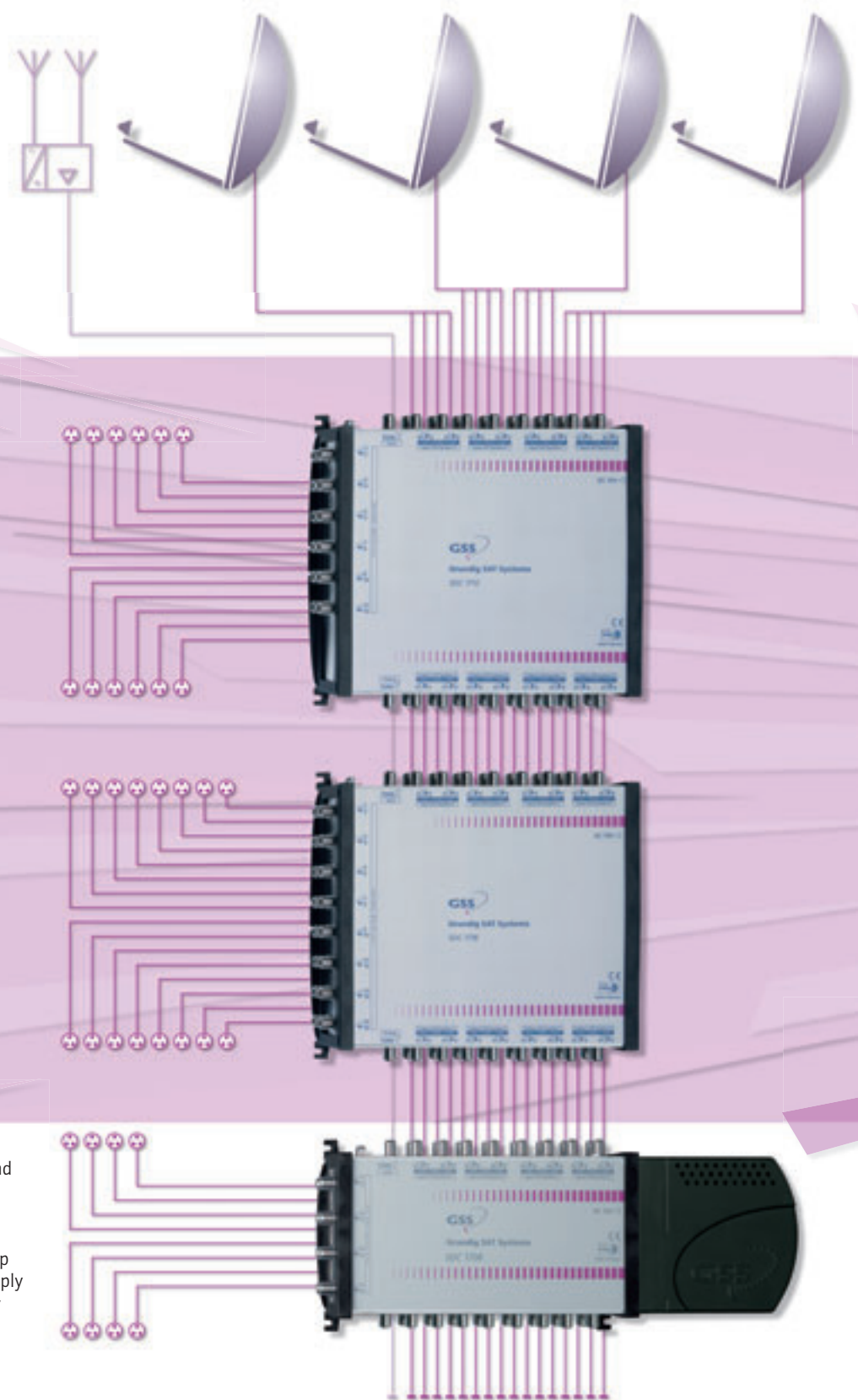
CASCADABLE STANDARD MULTISWITCHES

13 inputs

The cascadable multiswitch system consists of components with loop-through outputs and terminal units to be installed at the end of the distribution. The multiswitches with 12 SAT IF inputs have an additional passive terrestrial input which is capable for return-channel signals.

		SDC 1308	SDC 1312	SDC 1316
No. of SAT inputs		12	12	12
No. of terrestrial inputs		1	1	1
No. of loop-through outputs		13	13	13
No. of receiver outputs		8	12	16
Frequency range	SAT TERR RETURN CHANNEL	950 – 2200 MHz 87 – 862 MHz 5 – 65 MHz		
22-kHz generator		—	—	—
Through loss	SAT TERR	2 dB 2 dB	4 dB 4 dB	4 dB 4 dB
Tap loss	SAT TERR	5 dB 23 dB	7 dB 25 dB	7 dB 25 dB
Isolation	Hor./Vert. SAT/TERR Port/Port	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT TERR	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss		23 dB	25 dB	25 dB
Output level	SAT TERR	max. 101 dBμV passive	max. 101 dBμV passive	max. 101 dBμV passive
Noise figure	SAT TERR	7 dB passive	7 dB passive	7 dB passive
Feeding for receiver		< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB		1.5 W	1.5 W	1.5 W
Mains voltage		via SDP 1700	via SDP 1700	via SDP 1700
Dimensions in mm		240 x 135 x 60	240 x 225 x 60	240 x 225 x 60





Satellite installation for digital and analogue reception of up to four satellites (e.g. ASTRA 19.2°, ASTRA 23.5°, Eutelsat 13° and Turksat) with terrestrial feed for up to 36 participants. The power supply unit can flexibly connected to any of the three multiswitches.

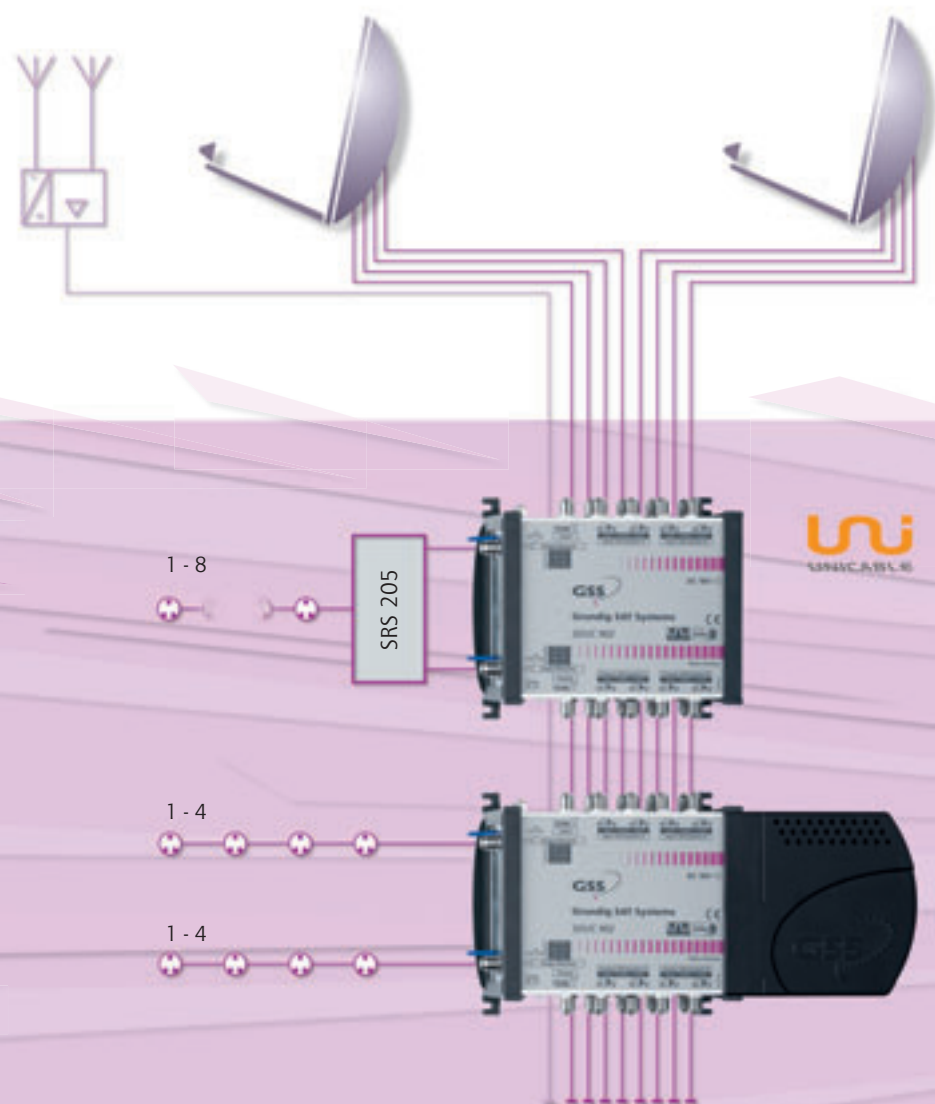
CASCADABLE STANDARD MULTISWITCHES

17 inputs

The cascable multiswitch system consists of components with loop-through outputs and terminal units to be installed at the end of the distribution. The multiswitches with 16 SAT IF inputs have an additional passive terrestrial input which is capable for return-channel signals.

		SDC 1708	SDC 1712	SDC 1716
No. of SAT inputs		16	16	16
No. of terrestrial inputs		1	1	1
No. of loop-through outputs		17	17	17
No. of receiver outputs		8	12	16
Frequency range	SAT TERR RETURN CHANNEL	950 – 2200 MHz 87 – 862 MHz 5 – 65 MHz		
22-kHz generator		—	—	—
Through loss	SAT TERR	2 dB 2 dB	4 dB 4 dB	4 dB 4 dB
Tap loss	SAT TERR	5 dB 23 dB	7 dB 25 dB	7 dB 25 dB
Isolation	Hor./Vert. SAT/TERR Port/Port	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT TERR	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss		23 dB	25 dB	25 dB
Output level	SAT TERR	max. 101 dBμV passive	max. 101 dBμV passive	max. 101 dBμV passive
Noise figure	SAT TERR	7 dB passive	7 dB passive	7 dB passive
Feeding for receiver		< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB		1.5 W	1.5 W	1.5 W
Mains voltage		via SDP 1700	via SDP 1700	via SDP 1700
Dimensions in mm		240 x 135 x 60	240 x 225 x 60	240 x 225 x 60





Satellite installation for digital reception of one satellite (e.g. ASTRA 19.2°) with terrestrial feed for up to 16 participants with receiver which support the Unicable standard. The power supply unit can flexibly connected to any of the both multiswitches.

CASCADABLE MULTISWITCHES UNICABLE

Cascadable multiswitches Unicable

The cascadable multiswitch system unicable consists of satellite and terrestrial inputs as well as loop-through outputs. An optional switching power supply can be used for low current consumption and noise-free transmission of the signals.

A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

The terrestrial input is suitable for return-path signals.

Both outputs can be combined with the splitter SRS 205 for creating a rope for 8 receivers.

	SDUC 502	SDUC 902
No. of SAT inputs	4	8
No. of terrestrial inputs	1	1
No. of loop-through outputs	5	9
Output frequencies output 1/channel ID		1284 MHz / 0 1400 MHz / 1 1516 MHz / 2 1632 MHz / 3
Output frequencies output 2/channel ID		1748 MHz / 4 1864 MHz / 5 1980 MHz / 6 2096 MHz / 7
Frequency range SAT TERR RETURN CHANNEL		950 – 2200 MHz 87 – 862 MHz 5 – 65 MHz
22-kHz generator	•	•
Through loss SAT TERR	2 dB 3.5 dB	2 dB 3.5 dB
Tap loss TERR (passive)	10 dB	10 dB
Gain SAT	14 dB	14 dB
Return loss SAT TERR	10 dB 10 dB	10 dB 10 dB
Return-channel loss TERR	10 dB	10 dB
Feeding for receiver	< 30 mA	< 30 mA
Power consumption without LNB	7 W	7 W
Mains voltage	via SDP 900	
Dimensions in mm	135 x 160 x 60	135 x 160 x 60



5 inputs

Multiswitches with 4 SAT IF inputs and one active terrestrial input. The latter can be attenuated by up to 10 dB and also switched to passive stage with allows return-path applications. A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

	PDSP 504	PDSP 506	PDSP 508
No. of SAT inputs	4	4	4
No. of terrestrial inputs	1	1	1
No. of outputs	4	6	8
Frequency range	SAT 950 – 2200 MHz TERR 87 – 862 MHz RETURN CHANNEL 5 – 65 MHz		
22-kHz generator	•	•	•
Tap loss	SAT 0 dB TERR (passive) 17 dB	0 dB 17 dB	0 dB 17 dB
Gain	TERR (active) 0 dB	0 dB	0 dB
Isolation	Hor./Vert. > 30 dB SAT/TERR > 25 dB Port/Port > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT 10 dB TERR 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss	17 dB	17 dB	17 dB
Output level	SAT max. 101 dBμV TERR max. 97 dB		
Noise figure	SAT 7 dB TERR 6 dB	7 dB 6 dB	7 dB 6 dB
Feeding for receiver	< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB	4.7 W	4.7 W	4.7 W
Mains voltage	100 – 230 V AC / 50/60 Hz		
Dimensions in mm	230 x 133 x 55	230 x 133 x 55	230 x 133 x 55



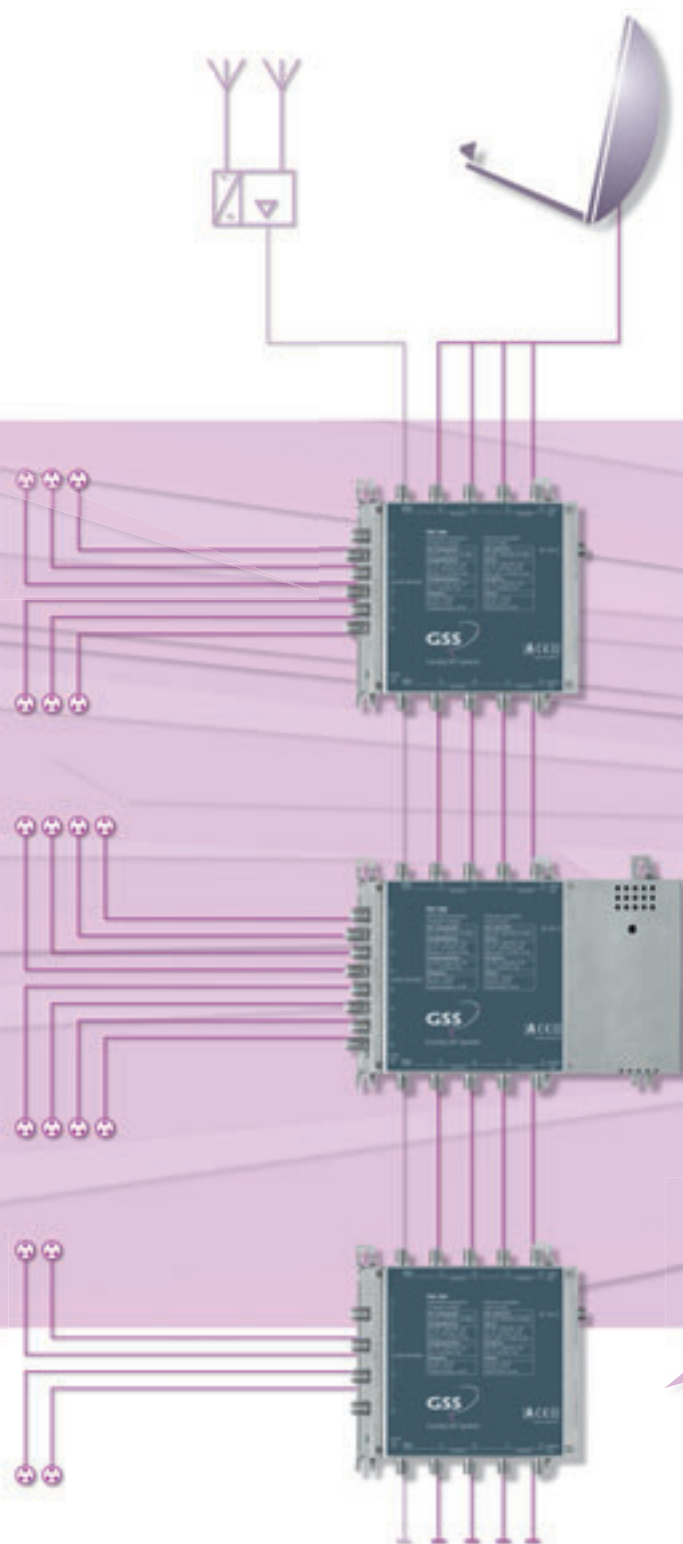
PROFESSIONAL MULTISWITCHES FOR SINGLE SYSTEMS

9 inputs

Multiswitches with 8 SAT IF inputs and one active terrestrial input. The latter can be attenuated by up to 10 dB and also switched to passive stage with allows return-path applications. A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

	PDSP 904	PDSP 906	PDSP 908
No. of SAT inputs	8	8	8
No. of terrestrial inputs	1	1	1
No. of outputs	4	6	8
Frequency range	SAT 950 – 2200 MHz TERR 87 – 862 MHz RETURN CHANNEL 5 – 65 MHz		
22-kHz generator	•	•	•
Tap loss	SAT 0 dB TERR (passive) 17 dB	0 dB 17 dB	0 dB 17 dB
Gain	TERR (active) 0 dB	0 dB	0 dB
Isolation	Hor./Vert. > 30 dB SAT/TERR > 25 dB Port/Port > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT 10 dB TERR 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss	17 dB	17 dB	17 dB
Output level	SAT max. 101 dBμV TERR max. 97 dB		
Noise figure	SAT 7 dB TERR 6 dB	7 dB 6 dB	7 dB 6 dB
Feeding for receiver	< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB	4.7 W	4.7 W	4.7 W
Mains voltage	100 – 230 V AC / 50/60 Hz		
Dimensions in mm	230 x 133 x 55	230 x 133 x 55	230 x 133 x 55





Satellite installation for digital and analogue reception of one satellite (e.g. ASTRA 19.2°) with terrestrial feed for up to 18 participants. The power supply unit can flexibly connected to any of the three multiswitches.

CASCADABLE PROFESSIONAL MULTISWITCHES

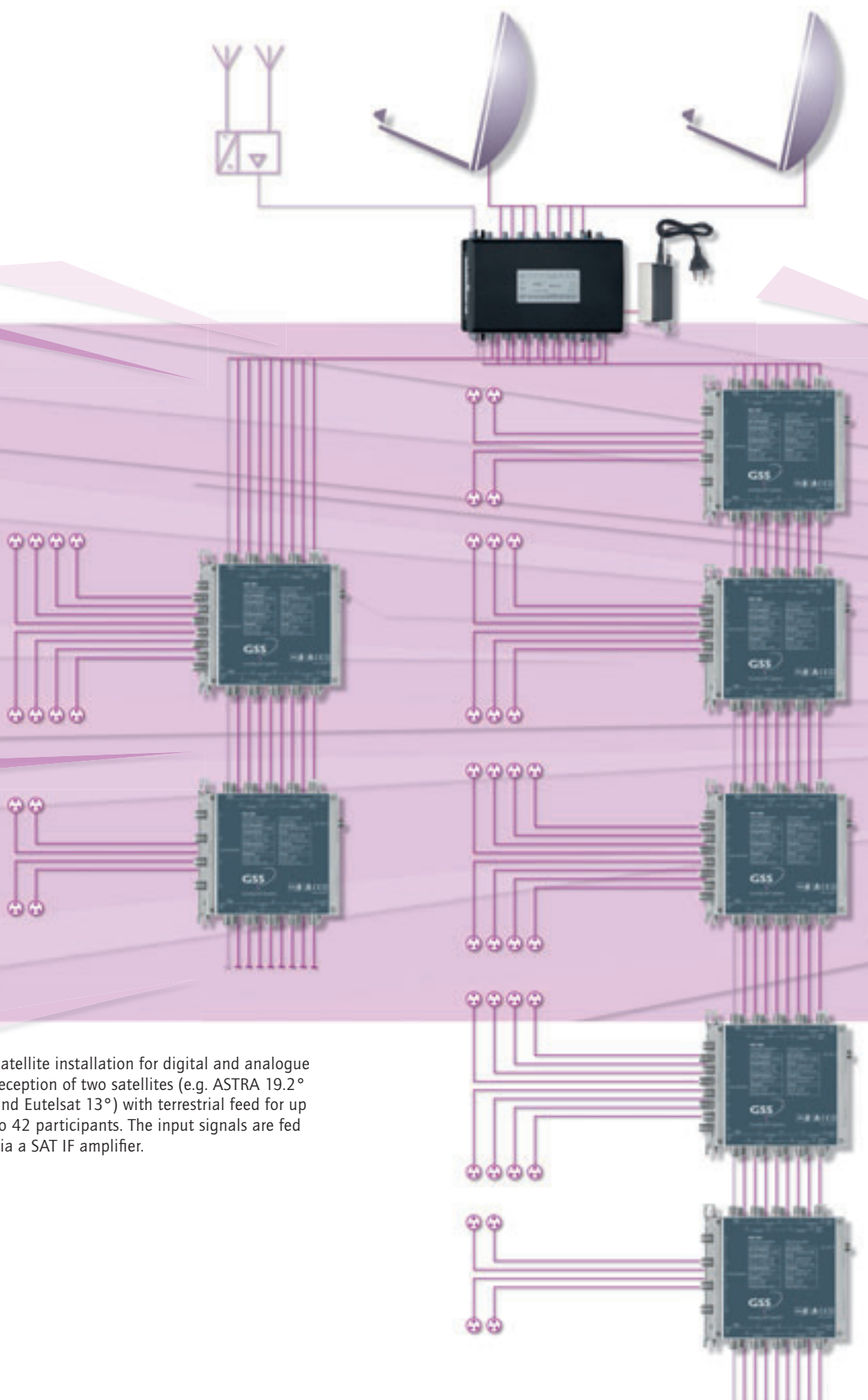
5 inputs

The cascable multiswitch system consists of satellite and terrestrial inputs as well as loop-through outputs. An optional switching power supply can be used for low current consumption and noise-free transmission of the signals. A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

The terrestrial input is suitable for return-path signals.

		PDC 504	PDC 506	PDC 508
No. of SAT inputs		4	4	4
No. of terrestrial inputs		1	1	1
No. of loop-through outputs		5	5	5
No. of receiver outputs		4	6	8
Frequency range	SAT TERR RETURN CHANNEL	950 – 2200 MHz 87 – 862 MHz 5 – 65 MHz		
22-kHz generator		•	•	•
Through loss	SAT TERR	3 dB 3 dB	3 dB 3 dB	3 dB 3 dB
Tap loss	SAT TERR	0 dB 23 dB	0 dB 23 dB	0 dB 23 dB
Isolation	Hor./Vert. SAT/TERR Port/Port	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT TERR	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss		23 dB	23 dB	23 dB
Output level	SAT TERR	max. 101 dBµV passive		
Noise figure	SAT	7 dB	7 dB	7 dB
Feeding for receiver		< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB		1.5 W	1.5 W	1.5 W
Mains voltage		via PDP 900		
Dimensions in mm		165 x 133 x 55	165 x 133 x 55	165 x 133 x 55





The diagram illustrates a satellite signal distribution system. At the top, two satellite dishes are connected to a central black SAT IF amplifier. This amplifier is connected to a network of six blue GSS HB-A100 distribution units. Each unit has multiple output ports, represented by small circular icons with a cross, which are connected to individual participants. The entire system is set against a background of stylized, overlapping purple and pink geometric shapes.

Satellite installation for digital and analogue reception of two satellites (e.g. ASTRA 19.2° and Eutelsat 13°) with terrestrial feed for up to 42 participants. The input signals are fed via a SAT IF amplifier.

CASCADABLE PROFESSIONAL MULTISWITCHES

9 inputs

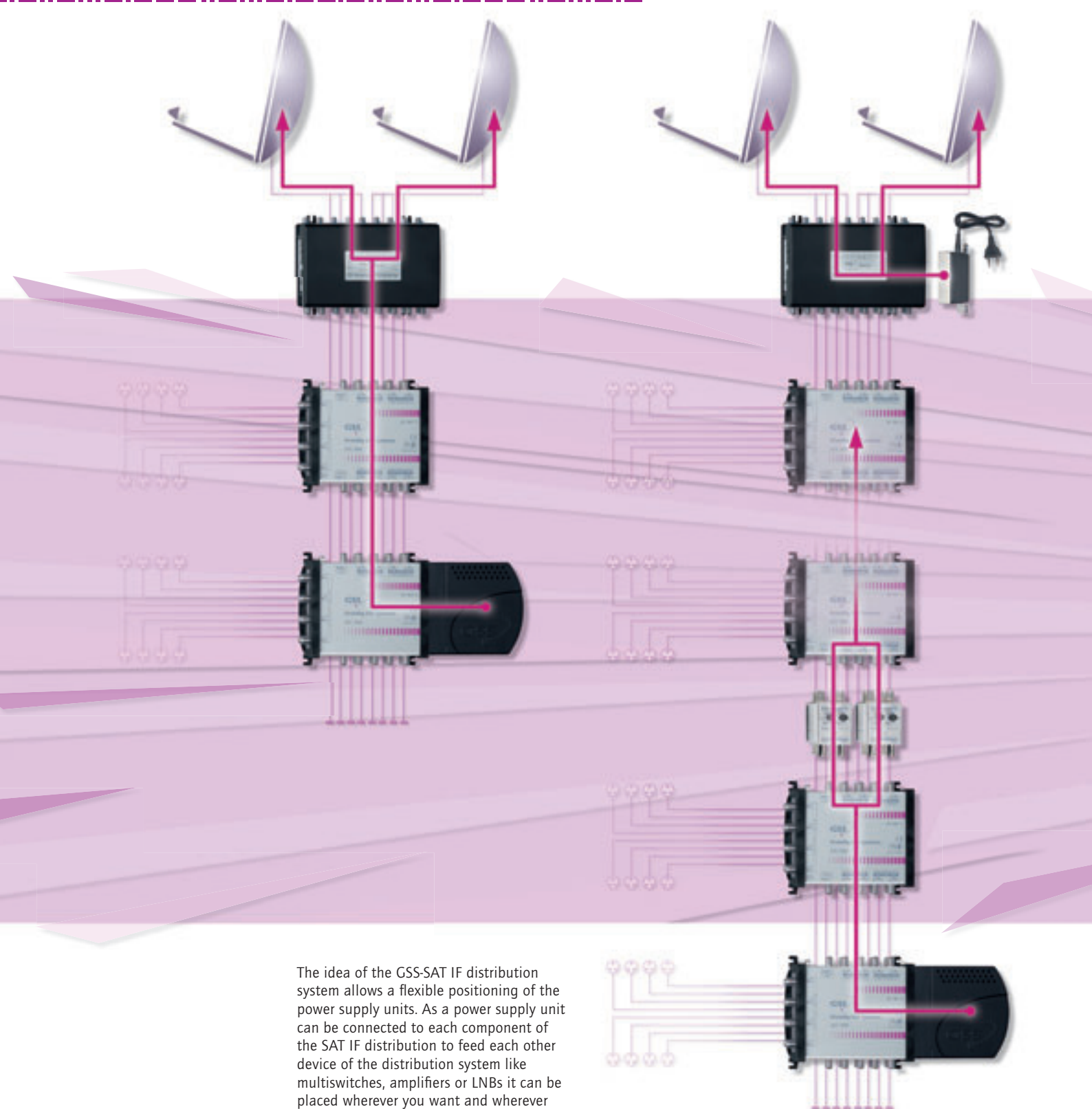
The cascable multiswitch system consists of satellite and terrestrial inputs as well as loop-through outputs. An optional switching power supply can be used for low current consumption and noise-free transmission of the signals. A 22-kHz signal generator can be switched on for controlling Quad LNBs with integrated multiswitch.

The terrestrial input is suitable for return-path signals.

		PDC 904	PDC 906	PDC 908
No. of SAT inputs		8	8	8
No. of terrestrial inputs		1	1	1
No. of loop-through outputs		9	9	9
No. of receiver outputs		4	6	8
Frequency range	SAT TERR RETURN CHANNEL	950 – 2200 MHz 87 – 862 MHz 5 – 65 MHz		
22-kHz generator		•	•	•
Through loss	SAT TERR	3 dB 3 dB	3 dB 3 dB	3 dB 3 dB
Tap loss	SAT TERR	0 dB 23 dB	0 dB 23 dB	0 dB 23 dB
Isolation	Hor./Vert. SAT/TERR Port/Port	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB	> 30 dB > 25 dB > 20 dB
Return loss	SAT TERR	10 dB 10 dB	10 dB 10 dB	10 dB 10 dB
Return-channel loss		23 dB	23 dB	23 dB
Output level	SAT TERR	max. 101 dBµV passive		
Noise figure	SAT	7 dB	7 dB	7 dB
Feeding for receiver		< 65 mA	< 65 mA	< 65 mA
Power consumption without LNB		1.5 W	1.5 W	1.5 W
Mains voltage		via PDP 900		
Dimensions in mm		165 x 133 x 55	165 x 133 x 55	165 x 133 x 55



POWER SUPPLY CONCEPT



The idea of the GSS-SAT IF distribution system allows a flexible positioning of the power supply units. As a power supply unit can be connected to each component of the SAT IF distribution to feed each other device of the distribution system like multiswitches, amplifiers or LNBs it can be placed wherever you want and wherever necessary.

AMPLIFIERS

SAT IF Amplifier

The amplifiers SDA 900 and SDA 500 can be used for huge distribution networks. These types have 9 resp. 5 inputs and 18 resp. 10 outputs.



		SDA 500	SDA 900
No. of SAT inputs		4	8
No. of terrestrial inputs		1	1
No. of outputs	SAT	8	16
	TERR	2	2
Frequency range	SAT	950 - 2200 MHz	950 - 2200 MHz
	TERR	40 - 862 MHz	40 - 862 MHz
Gain	SAT LINE	32 dB	32 dB
	SAT TAP	25 dB	25 dB
	TERR LINE	25 dB	25 dB
	TERR TAP	15 dB	15 dB
Isolation		> 70 dB	> 70 dB
Attenuation		0 ... 15 dB	0 ... 15 dB
Slope		0 ... 7 dB	0 ... 7 dB
Output level - IMA 3 -	SAT LINE	max. 114 dBμV	max. 114 dBμV
	SAT TAP	max. 107 dBμV	max. 107 dBμV
	TERR LINE	max. 114 dBμV	max. 114 dBμV
	TERR TAP	max. 104 dBμV	max. 104 dBμV
Output level - IMA 2 -	SAT LINE	max. 112 dBμV	max. 112 dBμV
	SAT TAP	max. 105 dBμV	max. 105 dBμV
	TERR LINE	max. 112 dBμV	max. 112 dBμV
	TERR TAP	max. 102 dBμV	max. 102 dBμV
Noise figure		8 dB	8 dB
Return loss		10 dB	10 dB
Power supply *)		15 V DC	15 V DC
Current consumption		750 mA	750 mA
Ambient temperature		-20° ... +50° C	-20° ... +50° C
Dimensions approx. in mm		107 x 142 x 80	193 x 142 x 80

*) via delivered power supply unit

	SDA 15
No. of SAT inputs	4
No. of SAT outputs	4
Frequency range	950 ... 2200 MHz
Gain	+ 14,5 dB
Isolation	> 70 dB
Attenuation	0 ... -10 dB
Output level	max. 103 dBμV (35 dB IMA 3 Ord.)
Return loss	10 dB
Current consumption SDA 15	ca. 40 mA
Current consumption LNC	max. 400 mA
Ambient temperature	-20°C ... +50°C
Dimensions approx. in mm	36 x 67 x 62

Plugging on Amplifier SDA 15

Plugging on amplifier for 4 SAT IF inputs, gain 14.5 dB



Multi-Amplifier

At huge SAT IF distribution systems it may be necessary to use multi-amplifier components for tapped signals in order to level the SAT IF signals. For this case the GSS models with 5 and 9 inputs and outputs with 12 dB and 20 dB gain are the right choice. They are fed by the power supply units of the SAT IF system (e.g. via the power supply unit of the multiswitch). The power supply unit SDP 152 (15 V/2 A) is optionally available if it is necessary!

		SDA 512	SDA 520	SDA 912	SDA 920
Frequency range	SAT	950 – 2200 MHz	950 – 2200 MHz	950 – 2200 MHz	950 – 2200 MHz
	TERR	10 – 862 MHz	10 – 862 MHz	10 – 862 MHz	10 – 862 MHz
Gain	SAT	8 – 12 dB	15 – 20 dB	8 – 12 dB	15 – 20 dB
	TERR	12 dB	20 dB	12 dB	20 dB
Attenuation	TERR	–	0 – 15 dB	–	0 – 15 dB
Return loss	SAT	10 dB	10 dB	10 dB	10 dB
	TERR	10 dB	10 dB	10 dB	10 dB
Output level	SAT	max. 110 dBμV	max. 113 dBμV	max. 110 dBμV	max. 113 dBμV
	TERR	max. 106 dBμV	max. 106 dBμV	max. 106 dBμV	max. 106 dBμV
Noise figure	SAT	7 dB	7 dB	7 dB	7 dB
	TERR	6 dB	6 dB	6 dB	6 dB
Current consumption		15 V/180 mA	15 V/250 mA	15 V/220 mA	15 V/450 mA
Remote current supply		max. 1000 mA	max. 1000 mA	max. 1000 mA	max. 1000 mA
Dimensions in mm		145 x 71 x 35	145 x 71 x 35	210 x 71 x 35	210 x 71 x 35



AMPLIFIERS

Multi-Amplifier

At huge SAT IF distribution systems it may be necessary to use multi-amplifier components for tapped signals in order to level the SAT IF signals. There are models with 5 and 9 inputs and outputs with a gain of 20 dB. Every input (TERR + SAT) is equipped with an attenuation controller by 15 dB. They are fed by the power supply units of the SAT IF system (e.g. via the power supply unit of the multiswitch). The power supply unit SDP 152 (15 V/2 A) is optionally available if it is necessary!

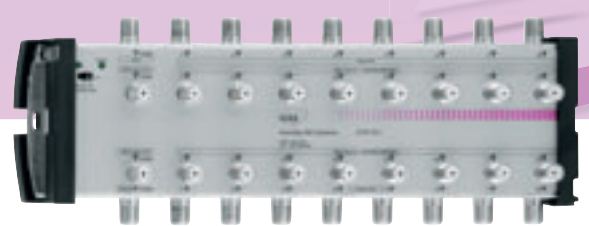
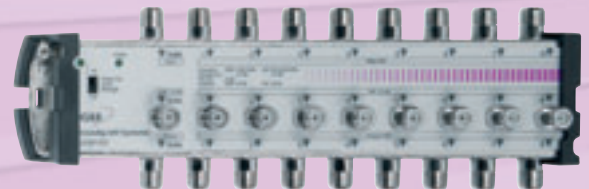
		SDA 521	SDA 921
Frequency range	SAT	950 – 2200 MHz	950 – 2200 MHz
	TERR	10 – 862 MHz	10 – 862 MHz
Gain	SAT	15 – 20 dB	15 – 20 dB
	TERR	20 dB	20 dB
Attenuation control		0 – 15 dB	0 – 15 dB
Return loss		12 dB	12 dB
Output level	SAT	111 dBμV	111 dBμV
	TERR	109 dBμV	109 dBμV
Noise figure		5 dB	5 dB
Current consumption		15 V / 250 mA	15 V / 500 mA
Remote current supply		max. 1000 mA	max. 1000 mA
Dimensions in mm		145 x 71 x 35	210 x 71 x 35



Multi-Tap

Multi-Taps are necessary for tapping the signals at huge SAT IF distribution systems. There are models with 5 loop-through and tap outputs available resp. 9 loop-through and tap outputs. The power supply unit SDP 152 (15 V/2 A) is optionally available if it is necessary!

		SDM 512	SDM 912	SDM 522	SDM 922
Frequency range	SAT	950 – 2200 MHz	950 – 2200 MHz	950 – 2200 MHz	950 – 2200 MHz
	TERR	10 – 862 MHz	10 – 862 MHz	10 – 862 MHz	10 – 862 MHz
Tap loss	SAT	12 – 16 dB	12 – 16 dB	2 x 11 – 17 dB	2 x 11 – 17 dB
	TERR	12 dB	12 dB	2 x 15 dB	2 x 15 dB
	RETURN CHANNEL	12 dB	12 dB	2 x 15 dB	2 x 15 dB
Through loss	SAT	1.8 dB	1.8 dB	2 – 3 dB	2 – 3 dB
	TERR	2 dB	2 dB	1 dB	1 dB
	RETURN CHANNEL	2 dB	2 dB	1 dB	1 dB
Return loss	SAT	10 dB	10 dB	10 dB	10 dB
	TERR	10 dB	10 dB	10 dB	10 dB
Remote current supply		max. 1000 mA	max. 1000 mA	max. 1000 mA	max. 1000 mA
Dimensions in mm		145 x 71 x 35	210 x 71 x 35	199 x 98 x 35	254 x 98 x 35



ACCESSORIES

Multi Splitter

Multi splitter are necessary for splitting the satellite signals at the end of a satellite IF line. There are models with double 5 and 9 splitting outputs. The power supply unit SDP 152 (15 V/2 A) is optionally available if it is necessary!

		SDS 526	SDS 926
Frequency range	SAT TERR	950 – 2200 MHz 5 – 862 MHz	950 – 2200 MHz 5 – 862 MHz
Split-loss	SAT TERR	2 x 6 dB 2 x 4 dB	2 x 6 dB 2 x 4 dB
Isolation		> 30 dB	> 30 dB
Return loss		12 dB	12 dB
Remote current supply		max 1000 mA	max 1000 mA
Dimensions in mm		145 x 71 x 35	210 x 71 x 35

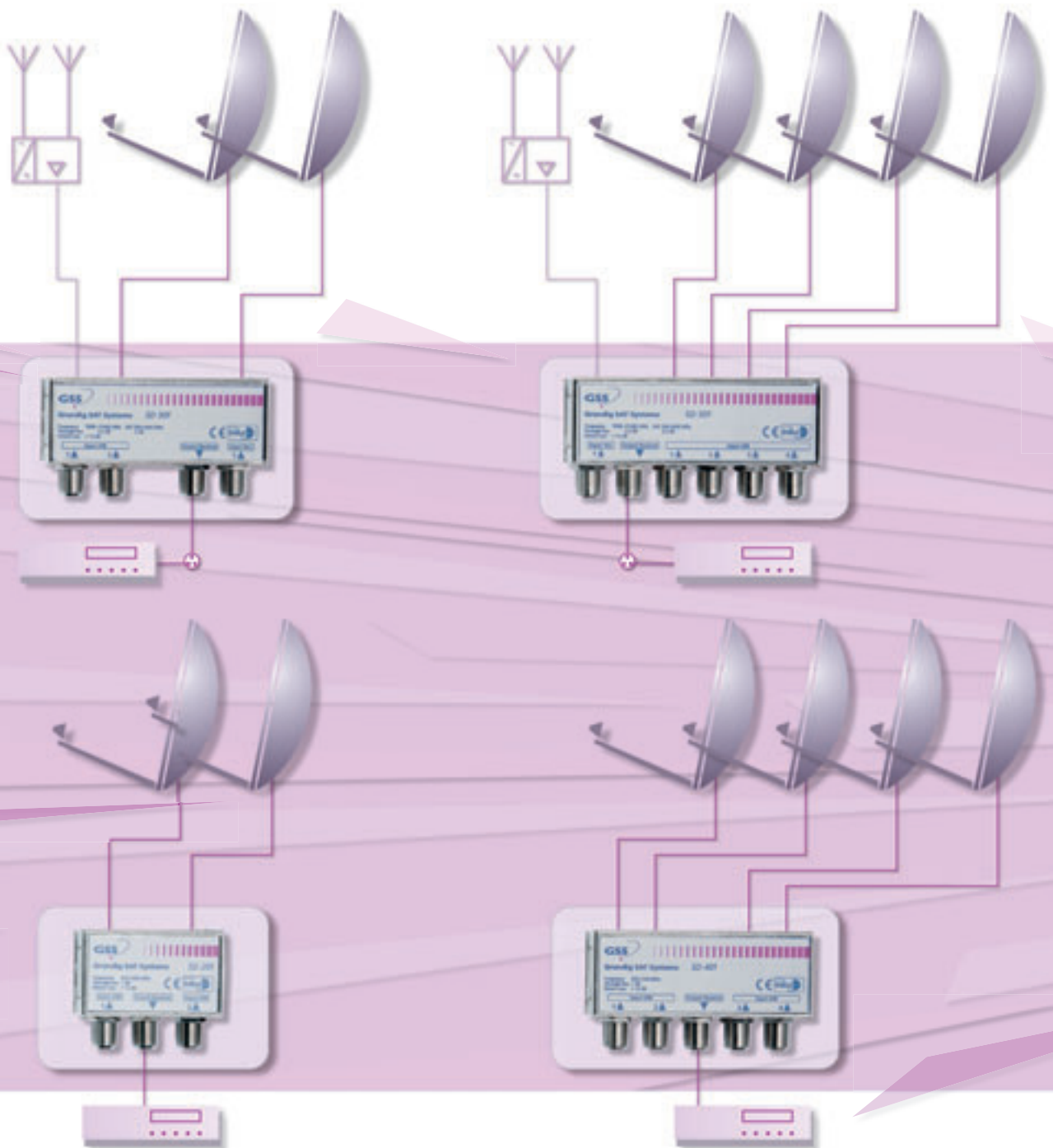


Power Supply Unit for SDC, SDT and SDUC

Power Supply Unit for PDC

	SDP 900 for SDC/SDT/SDUC 5XX – 9XX	SDP 1700 for SDC/SDT 13XX – 17XX	PDP 900 for PDC 5XX and 9XX
Mains voltage	100 V ... 230 V AC, 50/60 Hz	100 V ... 230 V AC, 50/60 Hz	100 V ... 230 V AC, 50/60 Hz
Output voltage	18 V DC	15 V DC	18 V DC
Max. output current	1000 mA DC	2000 mA DC	1000 mA DC
Ambient temperature	-20° ... +50° C	-20° ... +50° C	-20° ... +50° C
Dimensions approx. in mm	122 x 112 x 60	122 x 112 x 60	82 x 133 x 55





DiSEqC multiswitches are needed for satellite reception systems to distribute the signals to one receiver. With these switches one receiver can get access to the signals of up to four satellites.

DiSEqC MULTISWITCHES

DiSEqC Multiswitches

DiSEqC multiswitches are needed for satellite reception systems to distribute the signals to one receiver. With these switches one receiver can get access to the signals of up to four satellites. They are operated by the connected receiver without any external power supply. The GSS DiSEqC multiswitches are supplied with an UV and weather resistant housing which can be mounted either at an aerial mast or at walls.

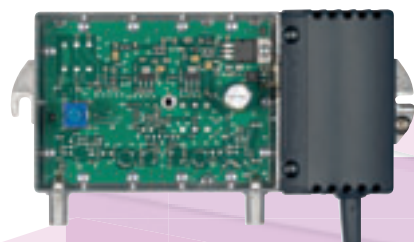
		SD 201	SD 301	SD 401	SD 501
No. of SAT inputs		2	2	4	4
No. of terrestrial inputs		-	1	-	1
No. of outputs		1	1	1	1
Frequency range	SAT	950 – 2400 MHz	950 – 2400 MHz	950 – 2400 MHz	950 – 2400 MHz
	TERR	-	47 – 862 MHz	-	47 – 862 MHz
Through loss	SAT	1 dB	2 dB	1 dB	2,5 dB
	TERR	-	0,5 dB	-	0,5 dB
Return loss		> 12 dB	> 12 dB	> 12 dB	> 12 dB
DiSEqC control		DiSEqC 2.0	DiSEqC 2.0	DiSEqC 2.0	DiSEqC 2.0
Isolation		> 30 dB	> 30 dB	> 30 dB	> 30 dB
Linearity		± 1 dB	± 1 dB	± 1 dB	± 1 dB
Control signal		Position	Position	Position/Option	Position/Option
Remote current supply		max. 700 mA	max. 700 mA	max. 700 mA	max. 700 mA
Current consumption		< 30 mA	< 30 mA	< 30 mA	< 30 mA
Dimensions without weather resistant housing in mm		50 x 45 x 18	80 x 45 x 18	80 x 45 x 18	90 x 45 x 18
Dimensions with weather resistant housing in mm		75 x 75 x 45	105 x 75 x 45	105 x 75 x 45	105 x 75 x 45
Weight		97 g	133 g	136 g	141 g



AR 4218, AR 4298

Distribution amplifiers for single and master antenna systems.
Frequency range up to 862 MHz. Output adjustable with variable level controller. 230 V mains voltage.

	AR 4218	AR 4298
Frequency range	40 – 862 MHz	40 – 862 MHz
Gain	21 dB	29 dB
Noise figure typ.	6 dB	6 dB
Output level, IMR = 60 dB		
IMR 2 acc. EN 50083-3	100 dBμV	105 dBμV
IMR 3 acc. EN 50083-3	107 dBμV	109 dBμV
IMR 3 acc. EN 50083-5	113 dBμV	115 dBμV
CSO Cenelec 42 channels 862 MHz	97 dBμV	101 dBμV
CTB Cenelec 42 channels 862 MHz	100 dBμV	101 dBμV
Attenuator	0 to -20 dB	0 to -20 dB
Mains voltage (50 - 60 Hz)	230 V AC	230 V AC
Power consumption	3 W	5 W
RF connectors	F connectors	F connectors
Weight	approx. 700 g	approx. 700 g
Dimensions (W x H x D)	170 x 90 x 50 mm	170 x 90 x 50 mm



AR 5218, AR 5298

Distribution amplifiers for single and master antenna systems.
Frequency range up to 862 MHz. Return-path up to 65 MHz either active or passive switchable. Output level and equalization adjustable with variable controllers. 230 V mains voltage.

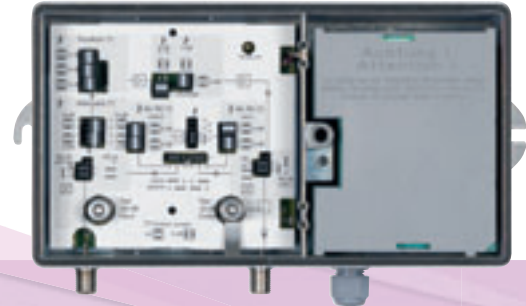
	AR 5218	AR 5298
Frequency range	85 – 862 MHz	85 – 862 MHz
Frequency range return-path	5 – 65 MHz	5 – 65 MHz
Gain	21 dB	29 dB
Gain return-path	19 dB	24 dB
Noise figure typ.	6 dB	6 dB
Output level, IMR = 60 dB		
IMR 2 acc. EN 50083-3 forward	100 dBμV	105 dBμV
IMR 2 acc. EN 50083-3 return	102 dBμV	102 dBμV
IMR 3 acc. EN 50083-3 forward	107 dBμV	109 dBμV
IMR 3 acc. EN 50083-3 return	107 dBμV	107 dBμV
IMR 3 acc. EN 50083-5 forward	113 dBμV	115 dBμV
IMR 3 acc. EN 50083-5 return	113 dBμV	113 dBμV
CSO Cenelec 42 channels 862 MHz	97 dBμV	101 dBμV
CTB Cenelec 42 channels 862 MHz	100 dBμV	101 dBμV
Attenuator	0 to -20 dB	0 to -20 dB
Adjustable line equalization	0 to 18 dB	0 to 18 dB
Mains voltage (50 – 60 Hz)	230 V AC	230 V AC
Power consumption	4.5 W	6 W
RF connectors	F connectors	F connectors
Weight	approx. 700 g	approx. 700 g
Dimesions (W x H x D)	170 x 90 x 50 mm	170 x 90 x 50 mm



WIDEBAND AMPLIFIERS

AR 5368

Distribution amplifiers for single and master antenna systems in cast housing with particularly good cooling properties. Frequency range up to 862 MHz. Return-path up to 65 MHz either active or passive switchable. Selection of the level and the equalization via discrete and switchable attenuation and equalization links. 230 V mains voltage.



AR 5368

Frequency range		40 (85) – 862 MHz
Frequency range return-path		5 – 65 MHz
Gain		36 dB
Gain return-path		27 dB
Noise figure typ.		5.5 dB
Output level, IMR = 60 dB		
IMR 2 acc. EN 50083-3	forward	114 dBμV
	return	104 dBμV
IMR 3 acc. EN 50083-5	forward	123 dBμV
	return	115 dBμV
CSO Cenelec 42 channels 862 MHz	forward	109 dBμV
CTB Cenelec 42 channels 862 MHz	return	108 dBμV
Attenuators		
at input (2-dB steps)	forward	0 to 16 dB
at input (2-dB steps)	return	0 to 6 dB/50 dB
at output	return	0/3/6/9 dB
Interstage	forward	0/6 dB
Line equalization		
at input (2-dB steps)	forward	0 to 16 dB
Interstage slope	forward	0/7 dB
Interstage slope	return	0/3/6 dB
Mains voltage (50 – 60 Hz)		180 – 253 V AC
Power consumption		9 W
RF connectors		F connectors
Weight		approx. 2.0 kg
Dimensions (W x H x D)		190 x 110 x 80 mm



Splitter		SR 812	SR 610	SR 407	SR 305	SR 203
No. of outputs		8	6	4	3	2
Frequency range		5 – 1000 MHz	5 – 1000 MHz	5 – 862 MHz	5 – 862 MHz	5 – 862 MHz
Splitt-loss	5 – 40 MHz	11.0 dB	9.3 dB	7.4 dB	5.5 dB	3.4 dB
	40 – 470 MHz	11.0 dB	9.8 dB	7.4 dB	5.5 dB	3.4 dB
	470 – 862 MHz	12.5 dB	10.5 dB	7.4 dB	5.5 dB	3.4 dB
Isolation	5 – 40 MHz	24 dB	20 dB	16 dB	16 dB	20 dB
	40 – 470 MHz	24 dB	22 dB	23 dB	20 dB	23 dB
	470 – 862 MHz	20 dB	20 dB	23 dB	20 dB	23 dB
Return-loss	5 – 40 MHz	20 dB	18 dB	> 14 dB	> 14 dB	> 16 dB
	40 – 470 MHz	18 dB	18 dB	> 20 dB ¹⁾	20 dB ¹⁾	20 dB ¹⁾
	470 – 862 MHz	18 dB	18 dB	> 20 dB ¹⁾	20 dB ¹⁾	20 dB ¹⁾
Connectors		F connector	F connector	F connector	F connector	F connector

Single-Tap		TR 116	TR 112	TR 108
No. of outputs		1	1	1
Frequency range		5 – 862 MHz	5 – 862 MHz	5 – 862 MHz
Tap-loss	5 – 40 MHz	16.0 dB	12.0 dB	8.5 dB
	40 – 470 MHz	16.0 dB	12.0 dB	8.5 dB
	470 – 862 MHz	16.0 dB	12.0 dB	8.5 dB
Through-loss	5 – 40 MHz	0.8 dB	1.0 dB	1.8 dB
	40 – 470 MHz	0.5 dB	0.7 dB	1.6 dB
	470 – 862 MHz	0.8 dB	1.0 dB	1.8 dB
Return-loss	5 – 40 MHz	> 14 dB	> 14 dB	> 14 dB
	40 – 470 MHz	> 20 dB ¹⁾	> 20 dB ¹⁾	> 20 dB ¹⁾
	470 – 862 MHz	> 20 dB ¹⁾	> 20 dB ¹⁾	> 20 dB ¹⁾
Directional-loss	5 – 40 MHz	> 30 dB	> 30 dB	> 22 dB
	40 – 470 MHz	> 26 dB	> 30 dB	> 30 dB
	470 – 862 MHz	> 26 dB	> 26 dB	> 22 dB
Connectors		F connector	F connector	F connector

High performance passive taps and splitters with F connector technology for installation of wideband cable distribution networks. Designed as single taps, double taps or multiple taps as well as splitters with 2, 3 and 4 connections, they ensure economical planning of distribution networks.

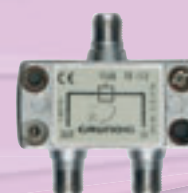
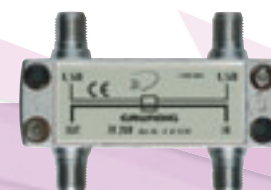
All components fulfil the higher shielding rating required for class A according to the standard EN 50083-2/-4 and are decoupled to prevent hum.

KLASSE
A
CLASS

Double-Tap		TR 216	TR 212	TR 208
No. of outputs		2	2	2
Frequency range		5 – 862 MHz	5 – 862 MHz	5 – 862 MHz
Tap-loss	5 – 40 MHz	16.5 dB	12.5 dB	8.5 dB
	40 – 470 MHz	16.5 dB	12.5 dB	8.5 dB
	470 – 862 MHz	16.5 dB	12.5 dB	8.5 dB
Through-loss	5 – 40 MHz	1.4 dB	1.4 dB	3.7 dB
	40 – 470 MHz	0.8 dB	1.2 dB	2.8 dB
	470 – 862 MHz	1.4 dB	1.8 dB	3.4 dB
Isolation	5 – 40 MHz	40 dB	40 dB	26 dB
	40 – 470 MHz	40 dB	40 dB	26 dB
	470 – 862 MHz	36 dB	36 dB	22 dB
Return-loss	5 – 40 MHz	> 14 dB	> 14 dB	> 14 dB
	40 – 470 MHz	> 20 dB ¹⁾	> 20 dB ¹⁾	> 20 dB ¹⁾
	470 – 862 MHz	> 20 dB ¹⁾	> 20 dB ¹⁾	> 20 dB ¹⁾
Directional-loss	5 – 40 MHz	> 26 dB	> 28 dB	> 18 dB
	40 – 470 MHz	> 30 dB	> 28 dB	> 18 dB
	470 – 862 MHz	> 26 dB	> 22 dB	> 16 dB
Connectors		F connector	F connector	F connector

1) at 40 MHz, -1.5 dB per octave

TAPS/SPLITTERS



KLASSE
A
CLASS

Multi-Tap		MTR 08	MTR 06	MTR 04
No. of outputs		8	6	4
Frequency range		5 – 862 MHz	5 – 862 MHz	5 – 862 MHz
Tap-loss	Output 1	12.5 dB	12.5 dB	12.5 dB
	Output 2	13.5 dB	13.5 dB	13.5 dB
	Output 3	14.5 dB	14.5 dB	14.5 dB
	Output 4	15.5 dB	15.5 dB	15.0 dB
	Output 5	16.5 dB	16.5 dB	–
	Output 6	17.5 dB	17.5 dB	–
	Output 7	18.0 dB	–	–
	Output 8	19.0 dB	–	–
Through-loss	5 – 40 MHz	9.5 dB	6.5 dB	4.5 dB
	40 – 470 MHz	8.0 dB	6.0 dB	3.8 dB
	470 – 862 MHz	8.0 dB	6.0 dB	3.8 dB
Isolation	5 – 40 MHz	36 dB	36 dB	36 dB
	40 – 470 MHz	40 dB	40 dB	40 dB
	470 – 862 MHz	36 dB	36 dB	36 dB
Return-loss	5 – 40 MHz	> 12 dB	> 12 dB	> 12 dB
	40 – 470 MHz	> 20 dB ¹⁾	> 20 dB ¹⁾	> 20 dB ¹⁾
	470 – 862 MHz	> 20 dB ¹⁾	> 20 dB ¹⁾	> 20 dB ¹⁾
Directional-loss	5 – 40 MHz	> 26 dB	> 26 dB	> 26 dB
	40 – 470 MHz	> 30 dB	> 30 dB	> 30 dB
	470 – 862 MHz	> 26 dB	> 26 dB	> 26 dB
Connectors		F connector	F connector	F connector

1) at 40 MHz, -1.5 dB per octave

Splitters

Splitters with F connector technology for the 1st SAT IF for splitting SAT signals, e.g. in Unicable systems or in connection with head-end station systems.

The splitter satisfies the higher shielding requirements of class A according to standard EN 50083-2/A1.

Splitter		SRS 408 DC	SRS 308 DC	SRS 207 DC	SRS 205
No. of outputs		4	3	2	2
No. of outputs with diode protection		•	•	•	-
Frequency range		40 – 2400 MHz	40 – 2400 MHz	40 – 2400 MHz	40 – 2400 MHz
Split-loss	40 – 860 MHz	7.5 dB	7.0 dB	4.0 dB	4.0 dB
	950 – 1750 MHz	8.5 dB	8.0 dB	5.0 dB	5.0 dB
	1750 – 2150 MHz	9.0 dB	8.5 dB	7.0 dB	7.0 dB
	2150 – 2400 MHz	9.5 dB	9.0 dB	7.0 dB	7.0 dB
Isolation	40 – 860 MHz	20 dB	16 dB	16 dB	16 dB
	950 – 1750 MHz	16 dB	14 dB	14 dB	14 dB
	1750 – 2150 MHz	16 dB	14 dB	12 dB	12 dB
	2150 – 2400 MHz	16 dB	14 dB	12 dB	12 dB
Return-loss	40 – 860 MHz	12 dB	12 dB	18 dB	18 dB
	950 – 1750 MHz	10 dB	10 dB	8 dB	8 dB
	1750 – 2150 MHz	10 dB	10 dB	8 dB	8 dB
	2150 – 2400 MHz	10 dB	10 dB	8 dB	8 dB
Connectors		F connector	F connector	F connector	F connector

OR series

The OR series antenna outlets can be used in distribution networks up to 862 MHz. They are designed for connection of one radio receiver and one TV. The designs as through-type outlet with staged output attenuations and stub cable outlet ensure economical planning of distribution networks with trunk or star structure. The return channel compatibility and the high return flow attenuation satisfies the requirements for interactive networks for data transmission.

The antenna outlets are distinguished by a stable cast housing and can be installed surface-mounted on the wall using the ORF 03 frame. The inner conductor is fastened with a contact screw and the outer conductor with a clamp. All components satisfy the Standard DIN EN 50083 – 2/-4. The following components are available as accessories for the OR series antenna outlets: Terminal resistor ORT 01, surface mount frame ORF 03 and cover plate ORC 02.

Wideband Stub cable outlet

OR 02	
Connectors	DIN IEC female socket for Radio DIN IEC male socket for TV
Frequency range	5 – 862 MHz
Tap-loss TV 5 – 862 MHz	2.2 dB
Tap-loss Radio 87.5 – 139 MHz	5.5 dB
Return-loss 5 – 65 MHz 65 – 862 MHz	> 20 dB > 15 dB



Wideband sockets for trunk lines

		OR 20	OR 15	OR 11	OR 09
Connectors		DIN IEC female socket for Radio, DIN IEC male socket for TV	DIN IEC female socket for Radio, DIN IEC male socket for TV	DIN IEC female socket for Radio, DIN IEC male socket for TV	DIN IEC female socket for Radio, DIN IEC male socket for TV
Frequency range		5 – 862 MHz	5 – 862 MHz	5 – 862 MHz	5 – 862 MHz
Through-loss	5 – 470 MHz	0.5 dB	0.8 dB	1.0 dB	1.7 dB
	470 – 862 MHz	0.8 dB	1.0 dB	1.3 dB	2.1 dB
Decoupling-loss TV	5 – 862 MHz	20.0 dB	15.0 dB	11.5 dB	9.5 dB
Decoupling-loss Radio	5 – 139 MHz	22.0 dB	18.0 dB	15.0 dB	12.0 dB
Directional-loss		> 38 dB	> 33 dB	> 33 dB	> 35 dB
Return-loss	5 – 65 MHz	> 20 dB	> 20 dB	> 20 dB	> 20 dB
	65 – 862 MHz	> 15 dB	> 15 dB	> 15 dB	> 15 dB

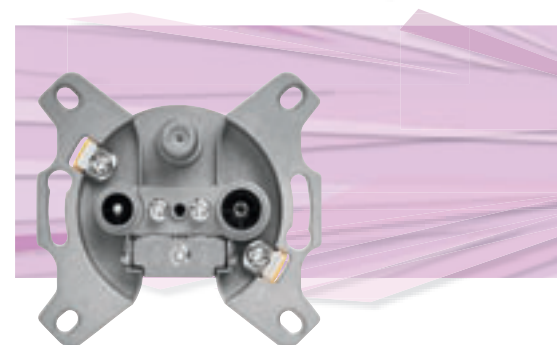
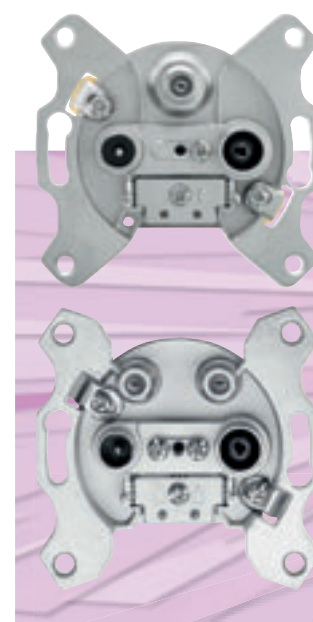
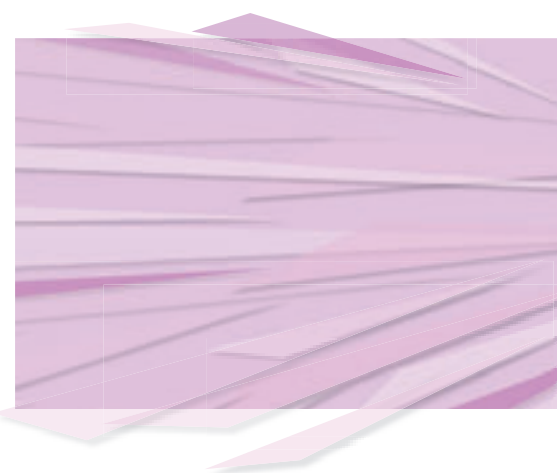
ANTENNA OUTLETS

ORS series

The ORS 03 and ORS 04 outlets can be used on stub cable and the ORS 13 DC can be used on loop-through in SAT distribution networks. They offer connection possibilities for one resp. two satellite receivers (ORS 04), radio receiver and TV. The 14 V/18 V converter feed voltage and 22 kHz switching signal are transferred over the SAT socket.

The antenna outlets are distinguished by their stable cast housing and can be installed flush in VDE switch boxes or surface-mounted on the wall using the ORF 04 frame. The inner conductor is fastened with a contact screw and the outer conductor with a clamp. The cover plate has dimensions of 80 mm x 80 mm and is included with the outlet.

	ORS 03	ORS 04
Connectors	DIN IEC male socket for TV DIN IEC female socket for RF F connector socket for SAT	DIN IEC male socket for TV DIN IEC female socket for RF F connector socket for SAT
Frequency range	40 – 2400 MHz	40 – 2400 MHz
Tap-loss TV	1.0 dB (40 – 68 MHz) 1.5 dB (174 – 862 MHz)	1.5 dB (40 – 68 MHz) 1.5 dB (174 – 862 MHz)
Tap-loss Radio	1.0 dB (87.5 – 125 MHz)	1.5 dB (87.5 – 125 MHz)
Tap-loss SAT 1	2.0 dB (950 – 2150 MHz) 3.0 dB (2150 – 2400 MHz)	2.5 dB (950 – 2050 MHz) 4.0 dB (2050 – 2150 MHz) 8.0 dB (2150 – 2400 MHz)
Tap-loss SAT 2	-	1.5 dB (950 – 2050 MHz) 2.5 dB (2050 – 2150 MHz) 5.0 dB (2150 – 2400 MHz)
max. LNB current	500 mA	500 mA



	ORS 13 DC
Connectors	DIN IEC male socket for TV DIN IEC female socket for RF F connector socket for SAT
Frequency range	4 – 2400 MHz
Tap-loss TV	10.5-13.5 dB (4 – 68 MHz) 10.5-13.5 dB (109 – 470 MHz) 10.5-13.5 dB (470 – 862 MHz)
Tap-loss Radio	10.5-13.5 dB (87.5 – 108 MHz)
Tap-loss SAT	10.5-13.5 dB (950 – 2050 MHz) 11.0-14.0 dB (2050 – 2200 MHz)
Through-loss TV	1.5 dB (4 – 68 MHz) 1.5 dB (109 – 470 MHz) 2.0 dB (470 – 862 MHz)
Through-loss Radio	1.5 dB (87.5 – 108 MHz)
Through-loss SAT	2.5 dB (950 – 2050 MHz) 3.0 dB (2050 – 2200 MHz)
max. LNB current	500 mA

DISH ANTENNAS/ACCESSORIES

STA 1000

100 cm aluminium antenna. Suitable for projects with head-end station systems. Simple installation with wing nuts.

Metal feed mount.

Colour:  

STA 855

85 cm aluminium antenna. Suitable for multifeed reception (when additional multifeed mount STM 2 is installed). Simple installation with wing nuts.

Metal feed mount.

Colour:   

STA 755

Aluminium antenna with size of 74 cm x 84 cm. With reception reserves (e.g. during bad weather). Simple installation with wing nuts.

Metal feed mount.

Colour:   

STA 605

Aluminium antenna with size of 57 cm x 64 cm. Simple installation with wing nuts.

Colour:  

Multifeed Mountings STM 1 and STM 2

The STM 1 (for plastic feed mounting) and STM 2 (for metal feed mounting) multifeed mountings offer reception possibilities for two satellites whose orbital position differs by approx. 6° (e.g. Astra 19.2° east and Eutelsat Hotbird 13° east).

colours

 anthracite
 light grey
 brick-red



Antenna	STA 1000	STA 855	STA 755	STA 605
Size of reflector	1090 x 991 mm	Ø 850 mm	740 x 840 mm	570 x 640 mm
Gain 10.75/11.75/12.75 GHz	39.8/40.5/40.9 dBi	38.12/38.65/39.53 dBi	36.80/37.55/38.50 dBi	34.67/35.15/36.13 dBi
Angle of beam	< 1.8°	< 2.2°	< 2.2°	< 2.9°
Isolation of cross-polarisation	> 27 dB	> 27 dB	> 27 dB	> 27 dB
Mounting of mast	32 – 76 mm	32 – 76 mm	32 – 50 mm	32 – 50 mm
Max. elevation	5 – 90°	15° - 50°	15° - 50°	15° - 50°
F/D ratio	0.55	0.6	0.6	0.6
Angle of offset	25°	21.5°	25°	25°
Wind load ¹⁾	268 kg	192.1 kg	156.2 kg	91.7 kg
Mounting of feed	Ø 23 and 40 mm	Ø 23 and 40 mm	Ø 23 and 40 mm	Ø 23 and 40 mm

¹⁾ at a speed of wind by 216 km/h



Universal Single-LNB

For reception of digital and analogue channels from satellites transmitting in the 11-GHz and 12-GHz frequency range.

Universal Single-LNB	GLS40
Input frequency range	10.7 – 11.7 GHz 11.7 – 12.75 GHz
Frequency of oscillator	9.75 GHz 10.6 GHz
Output frequency range	950 – 1950 MHz 1100 – 2150 MHz
Gain typ.	52 – 64 dB
Current supply typ.	110 mA
Mounting of feed	40 mm

Universal Twin-LNB

For connection of 2 receivers or one twin receiver for reception of digital and analogue channels in the 11-GHz and 12-GHz frequency range.

Universal Twin-LNB	GLT40
Input frequency range	10.7 – 11.7 GHz 11.7 – 12.75 GHz
Frequency of oscillator	9.75 GHz 10.6 GHz
Output frequency range	950 – 1950 MHz 1100 – 2150 MHz
Gain typ.	52 – 65 dB
Current supply typ.	120 mA
Mounting of feed	40 mm

Universal Quattro-LNB

For multiple subscriber systems for simultaneous reception of digital and analogue channels from satellites transmitting in the 11-GHz and 12-GHz frequency range.

Universal Quattro-LNB	GLQ40	GLQ400
Input frequency range	10.7 – 11.7 GHz 11.7 – 12.75 GHz	10.7 – 11.7 GHz 11.7 – 12.75 GHz
Frequency of oscillator	9.75 GHz 10.6 GHz	9.75 GHz 10.6 GHz
Output frequency range	950 – 1950 MHz 1100 – 2150 MHz	950 – 1950 MHz 1100 – 2150 MHz
Gain typ.	50 – 65 dB	55 dB
Current supply typ.	220 mA	200 mA
Mounting of feed	40 mm	40 mm

Universal Quad-LNB/ Universal Oct-LNB

For connection of 4 resp. 8 receivers for reception of digital and analogue channels from satellites transmitting in the 11-GHz and 12-GHz frequency range.

Universal Quad-LNB/ Universal Oct-LNB	GLQD40	GLQD400
Input frequency range	10.7 – 11.7 GHz 11.7 – 12.75 GHz	10.7 – 11.7 GHz 11.7 – 12.75 GHz
Frequency of oscillator	9.75 GHz 10.6 GHz	9.75 GHz 10.6 GHz
Output frequency range	950 – 1950 MHz 1100 – 2150 MHz	950 – 1950 MHz 1100 – 2150 MHz
Terrestrial input	-	-
No. of outputs	8	4
Gain typ.	50 – 65 dB	50 – 65 dB
Current supply typ.	210 mA	210 mA
Mounting of feed	40 mm	40 mm



Wall holder

WAH 25

Wall holder for SAT antennas
from aluminium
Length 250 mm, Height 250 mm

WAH 35

Wall holder for SAT antennas
from aluminium
Length 350 mm, Height 250 mm

WAH 45

Wall holder for SAT antennas
from aluminium
Length 450 mm, Height 250 mm

WSH 28

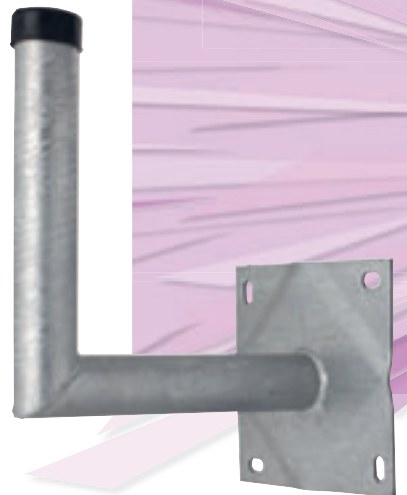
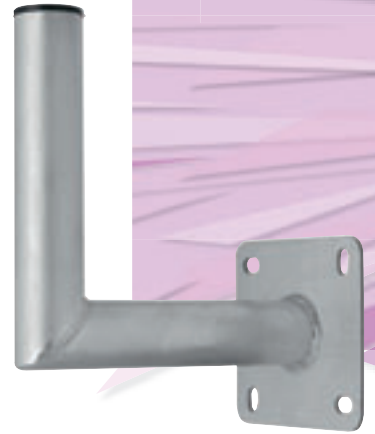
Wall holder for SAT antennas from steel
Length 280 mm, Height 300 mm

WSH 40

Wall holder for SAT antennas from steel
Length 400 mm, Height 300 mm

WSH 50

Wall holder for SAT antennas from steel
Length 500 mm, Height 300 mm



INSTALLATION MATERIAL

Accessories for roof installation

RMFR

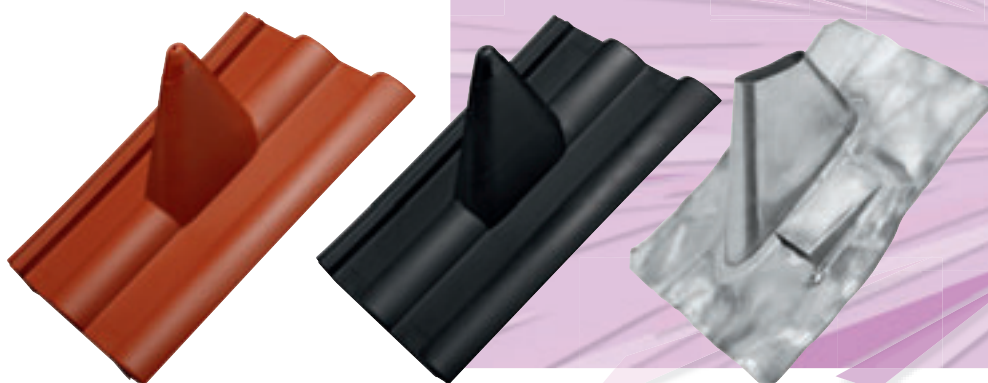
Frankfurt pan from plastic, red,
for mast installation

RMFB

Frankfurt pan from plastic, black
for mast installation

RMPB

Lead pan incl. lead-through
for cables, for mast installation



RMS 60

Mast boot (sealing grommet),
black 42/48/60

RM 9

Rafter holder,
adjustable for widths of rafters
from 56 cm to 92 cm,
length of mast 92 cm,
diameter of mast 48 mm

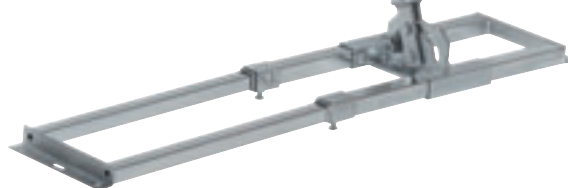
RME 50

extension for rafter holder RM9,
length 50 cm



RMT 80

Rhepanol sealing tape,
up to 80 mm



Compression gripper

GCG 1000

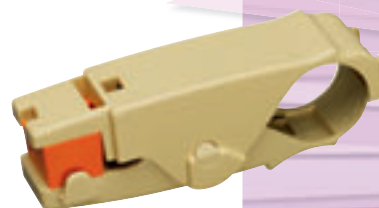
Compression gripper for F compression connectors and IEC compression connectors, for Mini, Midi and standard coaxial cables, suitable for F compression connector FCC 70



Wire stripping tool

GWS 1000

Wire stripping tool for coaxial cables 7mm, RG 6 for 6/7mm F connectors



Connecting cable

CCQ 150

HF connecting cable, with Quick-F connector at both sides, Length 1.50 m

CCQ 250

HF connecting cable, with Quick-F connector at both sides, Length 2.50 m

CCI 150

HF connecting cable, with IEC male connector and IEC female connector, Length 1.50 m



INSTALLATION MATERIAL

Connectors

FCC 70

F compression connector,
for coax cable with a diameter of 7.0 mm

FCW 70

F-connector, screwable, waterproof
for coax cable with a diameter of 7.0 mm

FC 70

F connector, screwable,
for coax cable with a diameter of 7.0 mm

FC 60

F connector, screwable,
for coax cable with a diameter of 6.0 mm

FC 50

F connector, screwable,
for coax cable with a diameter of 5.0 mm

FCF 70

F connector, female-female

FCF 360

F connector, female-female, U-form

FQQ 70

F connector, Quick male-Quick male

FIM 70

F connector, F connector-IEC male

FIF 70

F connector, F connector-IEC female

FT 75

F terminator, 75 Ohms

FTD 75

F terminator, 75 Ohms, DC decoupled

FQF 70

Adaptor from Quick male to F connector

ICM 100

IEC connector male, screwable,
for coax cable with a diameter
up to 7.0 mm

ICF 100

IEC connector female, screwable,
for coax cable with a diameter
up to 7.0 mm



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